



PTO/SB/08a/b (08-03)

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Substitute for form 1449A/B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/603,670
				Filing Date	June 26, 2003
				First Named Inventor	Kristy A. Campbell
				Art Unit	2826
				Examiner Name	J. P. Mondt
Sheet	1	of	3	Attorney Docket Number	M4065.0457/P457-B

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
<del>JS</del>	A	US 2004/0035401	2/2004	Ramachandran et al.	
<del>JS</del>	B	US 2003/0212724	11/2003	Ovshinsky et al.	
<del>JS</del>	C	US 2003/0048744	3/2003	Ovshinsky et al.	
<del>JS</del>	D	US 2003/0212725	11/2003	Ovshinsky et al.	
<del>JS</del>	E	US RE 37,259E	7/2001	Ovshinsky	
<del>JS</del>	F	US 3,271,591	9/1966	Ovshinsky	
<del>JS</del>	G	US 3,961,314	6/1976	Klose et al.	
<del>JS</del>	H	US 3,966,317	6/1976	Wacks et al.	
<del>JS</del>	I	US 3,983,542	11/1976	Ovshinsky	
<del>JS</del>	J	US 3,988,720	10/1976	Ovshinsky	
<del>JS</del>	K	US 4,177,474	12/1979	Ovshinsky	
<del>JS</del>	L	US 4,267,261	5/1981	Hallman et al.	
<del>JS</del>	M	US 4,597,162	7/1986	Johnson et al.	
<del>JS</del>	N	US 4,608,296	8/1986	Keem et al.	
<del>JS</del>	O	US 4,637,895	1/1987	Ovshinsky et al.	
<del>JS</del>	P	US 4,646,266	2/1987	Ovshinsky et al.	
<del>JS</del>	Q	US 4,664,939	5/1987	Ovshinsky	
<del>JS</del>	R	US 4,668,968	5/1987	Ovshinsky et al.	
<del>JS</del>	S	US 4,670,763	6/1987	Ovshinsky et al.	
<del>JS</del>	T	US 4,673,957	6/1987	Ovshinsky et al.	
<del>JS</del>	U	US 4,678,679	7/1987	Ovshinsky	
<del>JS</del>	V	US 4,696,758	9/1987	Ovshinsky et al.	
<del>JS</del>	W	US 4,698,234	10/1987	Ovshinsky et al.	
<del>JS</del>	X	US 4,710,899	12/1987	Young et al.	
<del>JS</del>	Y	US 4,728,406	3/1988	Banerjee et al.	
<del>JS</del>	Z	US 4,737,379	4/1988	Hudgens et al.	
<del>JS</del>	A1	US 4,766,471	8/1988	Ovshinsky et al.	
<del>JS</del>	B1	US 4,769,338	9/1988	Ovshinsky et al.	
<del>JS</del>	C1	US 4,775,425	10/1988	Guha et al.	
<del>JS</del>	D1	US 4,788,594	11/1988	Ovshinsky et al.	
<del>JS</del>	E1	US 4,809,044	2/1989	Pryor et al.	
<del>JS</del>	F1	US 4,818,717	4/1989	Johnson et al.	
<del>JS</del>	G1	US 4,843,443	6/1989	Ovshinsky et al.	
<del>JS</del>	H1	US 4,845,533	7/1989	Pryor et al.	
<del>JS</del>	I1	US 4,853,785	8/1989	Ovshinsky et al.	
<del>JS</del>	J1	US 4,891,330	1/1990	Guha et al.	
<del>JS</del>	K1	US 5,128,099	7/1992	Strand et al.	
<del>JS</del>	L1	US 5,159,661	10/1992	Ovshinsky et al.	
<del>JS</del>	M1	US 5,166,758	11/1992	Ovshinsky et al.	
<del>JS</del>	N1	US 5,177,567	1/1993	Kiersy et al.	
<del>JS</del>	O1	US 5,296,716	3/1994	Ovshinsky et al.	
<del>JS</del>	P1	US 5,335,219	8/1994	Ovshinsky et al.	
<del>JS</del>	Q1	US 5,359,205	10/1994	Ovshinsky	
<del>JS</del>	R1	US 5,341,328	8/1994	Ovshinsky et al.	
<del>JS</del>	S1	US 5,406,509	4/1995	Ovshinsky et al.	

Examiner: J. MONDT

*[Signature]*  
(12/7/04)



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Sheet	2	of	3
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T1	US 5,414,271	5/1995	Ovshinsky et al.
U1	US 5,534,711	7/1996	Ovshinsky et al.
V1	US 5,534,712	7/1996	Ovshinsky et al.
W1	US 5,536,947	7/1996	Klersy et al.
X1	US 5,543,737	8/1996	Ovshinsky
Y1	US 5,591,501	1/1997	Ovshinsky et al.
Z1	US 5,596,522	1/1997	Ovshinsky et al.
A2	US 5,687,112	11/1997	Ovshinsky
B2	US 5,694,054	12/1997	Ovshinsky et al.
C2	US 5,714,768	2/1998	Ovshinsky et al.
D2	US 5,825,046	10/1998	Czubatyj et al.
E2	US 5,912,839	6/1999	Ovshinsky et al.
F2	US 5,933,365	8/1999	Klersy et al.
G2	US 6,011,757	1/2000	Ovshinsky
H2	US 6,087,674	7/2000	Ovshinsky et al.
I2	US 6,141,241	10/2000	Ovshinsky et al.
J2	US 6,339,544	1/2002	Chiang et al.
K2	US 6,404,665	8/2002	Lowery et al.
L2	US 6,429,064	8/2002	Wicker
M2	US 6,437,383	8/2002	Xu
N2	US 6,462,984	10/2002	Xu et al.
O2	US 6,480,438	11/2002	Park
P2	US 6,487,113	11/2002	Park et al.
Q2	US 6,501,111	12/2002	Lowery
R2	US 6,507,061	1/2003	Hudgens et al.
S2	US 6,511,862	1/2003	Hudgens et al.
T2	US 6,511,867	1/2003	Lowery et al.
U2	US 6,512,241	1/2003	Lai
V2	US 6,514,805	2/2003	Xu et al.
W2	US 6,531,373	3/2003	Gill et al.
X2	US 6,534,781	3/2003	Dennison
Y2	US 6,545,287	4/2003	Chiang
Z2	US 6,545,907	4/2003	Lowery et al.
A3	US 6,555,860	4/2003	Lowery et al.
B3	US 6,563,164	5/2003	Lowery et al.
C3	US 6,566,700	5/2003	Xu
D3	US 6,567,293	5/2003	Lowery et al.
E3	US 6,569,705	5/2003	Chiang et al.
F3	US 6,570,784	5/2003	Lowery
G3	US 6,576,921	6/2003	Lowery
H3	US 6,586,761	7/2003	Lowery
I3	US 6,589,714	7/2003	Maimon et al.
J3	US 6,590,807	7/2003	Lowery
K3	US 6,593,176	7/2003	Dennison
L3	US 6,597,009	7/2003	Wicker
M3	US 6,605,527	8/2003	Dennison et al.
N3	US 6,613,604	9/2003	Maimon et al.
O3	US 6,621,095	9/2003	Chiang et al.
P3	US 6,625,054	9/2003	Lowery et al.
Q3	US 6,642,102	11/2003	Xu

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<del>R3</del>	R3	US 6,646,297	11/2003	Dennison	
<del>S3</del>	S3	US 6,649,928	11/2003	Dennison	
<del>T3</del>	T3	US 6,667,900	12/2003	Lowery et al.	
<del>U3</del>	U3	US 6,671,710	12/2003	Ovshinsky et al.	
<del>V3</del>	V3	US 6,673,648	1/2004	Lowrey	
<del>W3</del>	W3	US 6,673,700	1/2004	Dennison et al.	
<del>X3</del>	X3	US 6,674,115	1/2004	Hudgens et al.	
<del>Y3</del>	Y3	US 6,687,427	2/2004	Ramalingam et al.	
<del>Z3</del>	Z3	US 6,690,026	2/2004	Peterson	
<del>A4</del>	A4	US 6,696,355	2/2004	Dennison	
<del>B4</del>	B4	US 6,687,153	2/2004	Lowery	
<del>C4</del>	C4	US 6,707,712	3/2004	Lowery	
<del>D4</del>	D4	US 6,714,954	3/2004	Ovshinsky et al.	


FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	7 <sup>d</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)					

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		

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**INFORMATION DISCLOSURE  
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Sheet 1 of 10

**Complete if Known**

Application Number	10/603,670
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First Named Inventor	Kristy A. Campbell
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**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
<del>AA</del>	AA	6,388,324	05/14/2002	Kozicki et al.*	
<del>AB</del>	AB	US 2002/0000666	01/03/2002	Kozicki et al.*	
<del>AC</del>	AC	5,500,532	03/19/1996	Kozicki et al.*	
<del>AD</del>	AD	6,418,049	07/09/2002	Kozicki et al.*	
<del>AE</del>	AE	5,751,012	05/12/1998	Wolstenholme et al.*	
<del>AF</del>	AF	5,789,277	08/04/1998	Zahorik et al.*	
<del>AG</del>	AG	6,348,365	02/19/2202	Moore et al.*	
<del>AH</del>	AH	US 2002/0168820	11/14/2002	Kozicki et al.*	
<del>AI</del>	AI	6,469,364	10/22/2002	Kozicki*	
<del>AJ</del>	AJ	6,348,365	02/19/02	Moore et al.*	
<del>AK</del>	AK	6,418,049	07/09/02	Kozicki et al.*	
<del>AL</del>	AL	5,761,115	06/02/1998	Kozicki et al.*	
<del>AM</del>	AM	5,896,312	04/20/1999	Kozicki et al.*	
<del>AN</del>	AN	5,914,893	06/22/1999	Kozicki et al.*	
<del>AO</del>	AO	6,084,796	07/04/2000	Kozicki et al.*	
<del>AP</del>	AP	6,635,914	10/21/2003	Kozicki et al.	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
<del>BA</del>	BA	WO 02/21542	03/14/2002	Kozicki et al.*		
<del>BB</del>	BB	WO 00/48196	08/17/2000	Kozicki et al.*		
<del>BC</del>	BC	WO 97/48032	12/18/1997	Kozicki et al.*		
<del>BD</del>	BD	WO 99/28914	06/10/1999	Kozicki et al.*		

Examiner Signature	J. MONDT	Date Considered	12/07/04
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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See attached Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the application number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
<del>CA</del>	CA	Abdel-All, A.; Elshafie, A.; Elhawary, M.M., DC electric-field effect in bulk and thin-film Ge <sub>5</sub> As <sub>38</sub> Te <sub>57</sub> chalcogenide glass, Vacuum 59 (2000) 845-853. *	
<del>CB</del>	CB	Adler, D.; Moss, S.C., Amorphous memories and bistable switches, J. Vac. Sci. Technol. 9 (1972) 1182-1189. *	
<del>CC</del>	CC	Adler, D.; Henisch, H.K.; Mott, S.N., The mechanism of threshold switching in amorphous alloys, Rev. Mod. Phys. 50 (1978) 209-220. *	
<del>CD</del>	CD	Afifi, M.A.; Labib, H.H.; El-Fazary, M.H.; Fadel, M., Electrical and thermal properties of chalcogenide glass system Se <sub>75</sub> Ge <sub>25-x</sub> Sb <sub>x</sub> , Appl. Phys. A 55 (1992) 167-169. *	
<del>CE</del>	CE	Afifi, M.A.; Labib, H.H.; Fouad, S.S.; El-Shazly, A.A., Electrical & thermal conductivity of the amorphous semiconductor GexSe <sub>1-x</sub> , Egypt, J. Phys. 17 (1986) 335-342. *	
<del>CF</del>	CF	Alekperova, Sh.M.; Gadzhieva, G.S., Current-Voltage characteristics of Ag <sub>2</sub> Se single crystal near the phase transition, Inorganic Materials 23 (1987) 137-139. *	
<del>CG</del>	CG	Aleksiejunas, A.; Cesnys, A., Switching phenomenon and memory effect in thin-film heterojunction of polycrystalline selenium-silver selenide, Phys. Stat. Sol. (a) 19 (1973) K169-K171. *	
<del>CH</del>	CH	Angell, C.A., Mobile ions in amorphous solids, Annu. Rev. Phys. Chem. 43 (1992) 693-717. *	
<del>CI</del>	CI	Aniya, M., Average electronegativity, medium-range-order, and ionic conductivity in superionic glasses, Solid state Ionics 136-137 (2000) 1085-1089. *	
<del>CJ</del>	CJ	Asahara, Y.; Izumitani, T., Voltage controlled switching in Cu-As-Se compositions, J. Non-Cryst. Solids 11 (1972) 97-104. *	
<del>CK</del>	CK	Asokan, S.; Prasad, M.V.N.; Parthasarathy, G.; Gopal, E.S.R., Mechanical and chemical thresholds in IV-VI chalcogenide glasses, Phys. Rev. Lett. 62 (1989) 808-810. *	
<del>CL</del>	CL	Baranovskii, S.D.; Cordes, H., On the conduction mechanism in ionic glasses, J. Chem. Phys. 111 (1999) 7546-7557. *	
<del>CM</del>	CM	Belin, R.; Taillades, G.; Pradel, A.; Ribes, M., Ion dynamics in superionic chalcogenide glasses: complete conductivity spectra, Solid state Ionics 136-137 (2000) 1025-1029. *	
<del>CN</del>	CN	Belin, R.; Zerouale, A.; Pradel, A.; Ribes, M., Ion dynamics in the argyrodite compound Ag <sub>7</sub> GeSe <sub>5</sub> I: non-Arrhenius behavior and complete conductivity spectra, Solid State Ionics 143 (2001) 445-455. *	
<del>CO</del>	CO	Benmore, C.J.; Salmon, P.S., Structure of fast ion conducting and semiconducting glassy chalcogenide alloys, Phys. Rev. Lett. 73 (1994) 264-267. *	
<del>CP</del>	CP	Bernede, J.C., Influence du metal des electrodes sur les caracteristiques courant-tension des structures M-Ag <sub>2</sub> Se-M, Thin solid films 70 (1980) L1-L4. *	
<del>CQ</del>	CQ	Bernede, J.C., Polarized memory switching in MIS thin films, Thin Solid Films 81 (1981) 155-160. *	
<del>CR</del>	CR	Bernede, J.C., Switching and silver movements in Ag <sub>2</sub> Se thin films, Phys. Stat. Sol. (a) 57 (1980) K101-K104. *	
<del>CS</del>	CS	Bernede, J.C.; Abachi, T., Differential negative resistance in metal/insulator/metal structures with an upper bilayer electrode, Thin solid films 131 (1985) L61-L64. *	
<del>CT</del>	CT	Bernede, J.C.; Conan, A.; Fousenan't, E.; El Bouchairi, B.; Goureaux, G., Polarized memory switching effects in Ag <sub>2</sub> Se/Se/M thin film sandwiches, Thin solid films 97 (1982) 165-171. *	
<del>CU</del>	CU	Bernede, J.C.; Khellil, A.; Kettaf, M.; Conan, A., Transition from S- to N-type differential negative resistance in Al-Al <sub>2</sub> O <sub>3</sub> -Ag <sub>2</sub> -xSe <sub>1+x</sub> thin film structures, Phys. Stat. Sol. (a) 74 (1982) 217-224. *	
<del>CV</del>	CV	Bondarev, V.N.; Pikhitsa, P.V., A dendrite model of current instability in RbAg <sub>4</sub> I <sub>5</sub> , Solid State Ionics 70/71 (1994) 72-76. *	
<del>CW</del>	CW	Boolchand, P., The maximum in glass transition temperature (T <sub>g</sub> ) near x=1/3 in GexSe <sub>1-x</sub>	

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		Group Art Unit	2826		
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		Glasses, Asian Journal of Physics (2000) 9, 709-72. *	
	CX	Boalchand, P.; Georgiev, D.G.; Goodman, B., Discovery of the Intermediate Phase in Chalcogenide Glasses, J. Optoelectronics and Advanced Materials, 3 (2001), 703*	
	CY	Boalchand, P.; Selvanathan, D.; Wang, Y.; Georgiev, D.G.; Bresser, W.J., Onset of rigidity in steps in chalcogenide glasses, Properties and Applications of Amorphous Materials, M.F. Thorpe and Tichy, L. (eds.) Kluwer Academic Publishers, the Netherlands, 2001, pp. 97-132. *	
	CZ	Boalchand, P.; Enzweiler, R.N.; Tenhover, M., Structural ordering of evaporated amorphous chalcogenide alloy films: role of thermal annealing, Diffusion and Defect Data Vol. 53-54 (1987) 415-420. *	
	CA1	Boalchand, P.; Grothaus, J.; Bresser, W.J.; Suranyi, P., Structural origin of broken chemical order in a GeSe2 glass, Phys. Rev. B 25 (1982) 2975-2978. *	
	CB1	Boalchand, P.; Grothaus, J.; Phillips, J.C., Broken chemical order and phase separation in GexSe1-x glasses, Solid state comm. 45 (1983) 183-185. *	
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/603,670
		Filing Date	June 26, 2003
		First Named Inventor	Kristy A. Campbell
		Group Art Unit	2826
		Examiner Name	Johannes P. Mondt
		Attorney Docket Number	M4065.0457/P457-B
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Examiner Signature	J. MONDT	Date Considered	12/07/04
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